

~~Claims~~~~I CLAIM~~

1. A coupling element (1, 100) for connecting two components (9.1, 9.2, 10, 20) in a radially resilient, but torsion-proof manner, consisting of a piece of sheet metal shaped in one piece, having

5 - a base (2, 102),

- several brackets (3, 4, 5, 6, 103, 104, 105, 106) formed on the base (2, 102), wherein

10 - at least one of the brackets (4, 6, 104, 106) can be rigidly fastened on one of the two components (9.1, 10), and at least one further bracket (3, 5, 103, 105) can be rigidly fastened on the other one of the two components (9.2, 20), and

15 - each bracket (3 to 6, 103 to 106) has three support points (3.1 to 6.3, 103.1 to 106.3), which are spaced apart from each other in the circumferential direction, and

20 - respectively one of the support points (3.1, 4.1, 5.1, 6.1, 103.1, 104.1, 105.1, 106.1) is located, centered in the circumferential direction between the other two support points (3.2,

25 3.3, 4.2, 4.3, 5.2, 5.3, 6.2, 6.3, 103.2, 103.3, 104.2, 104.3, 105.2, 105.3, 106.2, 106.3), and

20 - the center support point (3.1, 4.1, 5.1, 6.1) forms the connection of the bracket (3, 4, 5, 6) with the base (2), and the two further support points (3.2, 3.3, 4.2, 4.3, 5.2, 5.3, 6.2, 6.3) can be rigidly connected with one of the two components (9.1, 9.2, 10, 20), or the center support point (103.1, 104.1, 105.1, 106.1) can be rigidly connected with one of the two

25 components (9.1, 9.2, 10, 20), and the two further support points (103.2, 103.3, 104.2, 104.3, 105.2, 105.3, 106.2, 106.3) form the connection of the bracket (103, 104, 105, 106) with the base (102), characterized in that

30 - the flexural strength of the brackets (3, 4, 5, 6, 103, 104, 105, 106) between the center support points (3.1, 4.1, 5.1, 6.1, 103.1, 104.1, 105.1, 106.1) and the connecting line of the further support points (3.2, 3.3, 4.2, 4.3, 5.2, 5.3, 6.2, 6.3, 103.2, 103.3, 104.2, 104.3, 105.2, 105.3, 106.2, 106.3) is considerably greater than the flexural strength between the center support points (3.1, 4.1, 5.1, 6.1, 103.1, 104.1, 105.1, 106.1) and the two further support points (3.2, 3.3, 4.2, 4.3, 5.2, 5.3, 6.2, 6.3, 103.2, 103.3, 104.2, 104.3, 105.2, 105.3, 106.2, 106.3).

2. The coupling element in accordance with claim 1, characterized in that all support points (3.1 to 6.3, 103.1 to 106.3) are located on a common plane.

3. The coupling element in accordance with claim 1 or 2, characterized in that  
5 - four brackets (3 to 6, 103 to 106) are formed on the base (2, 102) by being bent at 90° with respect to the base (2, 102),  
- the bending point constitutes at least one of the support points (3.1, 4.1, 5.1, 6.1, 103.1, 104.1, 105.1, 106.1),  
- respectively two brackets (3, 5, 4, 6, 103, 105, 104, 106) are arranged opposite each 10 other and extending parallel with each other and constitute a pair of brackets,  
- the two pairs of brackets extend at right angles with respect to each other,  
- the support points (3.1 to 6.3, 103.1 to 106.3) of all brackets (3 to 6, 103 to 106) are located on the plane of the base (2, 102).

15 4. The coupling element in accordance with one of the preceding claims, characterized in that the base (2, 102) is embodied to be axially resilient.

5. The coupling element in accordance with one of the preceding claims, characterized in that the axial resilience of the base (2, 102) is increased by means of bends, in 20 particular beads.

6. The coupling element in accordance with one of the preceding claims, characterized in that the support points for the rigid fastening of the brackets (3 to 6, 103 to 106) to the two components (9.1, 9.2, 10, 20) are bores (3.2, 3.3, 4.2, 4.3, 5.2, 5.3, 6.2, 6.3, 25 103.1, 104.1, 105.1, 106.1).

7. The coupling element in accordance with one of the preceding claims, characterized in that two first brackets (4, 6), which are located parallel and opposite each other, are fastened on a first flange (9.1) of a shaft adapter (9), and two brackets (3, 5) which 30 extend perpendicular with respect to the first brackets (4, 6) and are located parallel and opposite each other, are fastened on a second flange (9.2) of the shaft adapter (9).

8. The coupling element in accordance with claim 7, characterized in that each of the flanges (9.1, 9.2) has means (9.11, 9.21) for rigid fastening of a shaft.

9. The coupling element in accordance with claim 8, characterized in that at least 5 one of the flanges (9.2) has a bore (9.21), in particular for the radial clamping of a shaft.

10. The coupling element in accordance with claim 9, characterized in that a shaft of an angle-measuring device is clamped in the bore (9.21) of the flange (9.2).

10 11. An angle-measuring device, having a shaft (31), which is rotatably fastened on a scanning unit (20), and a coupling element (1) in accordance with one of the preceding claims 1 to 6, wherein the scanning unit (20) is connected to a stator (10) by means of this coupling element (1) in a torsion-proof, but radially resilient manner.

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